



K36E zone module with integrated temperature / flow bypass valve

1" / DN 25

With thermal control valve to compensate temperature differences in solid fuel boilers as well as in wood firing and stove heating systems

Your advantages:

Connections 1 1/2" female.

Large ball valve handles

Easy handling, visible closing position.

Design insulation with optimized function made of durable elastic EPP, **100% insulation of the fittings**, ventilation openings to cool the pumps.

Check valve in return pipe

prevents any noise when electronically controlled pumps are used, can be opened, 200 mm water column, spring-operated, thus suitable for horizontal and overhead installation.

Supply on the right = standard

The supply and return line can be changed infilled.

All water-carrying parts are made of brass.

All-metal temperature gauges

can be pulled off, integrated in the ball valve with an immersion sleeve.

Fully assembled with flat gaskets.

PAW heating circulation pumps - flanged 2 bolt

preinstalled, integrated in the insulation, pressure tested, serial number, perfectly designed system, pump characteristics. **For technical reasons electronically controlled pumps are not recommended for the K36E zone module!**

Flat sealing 1 1/2" male inlet connections

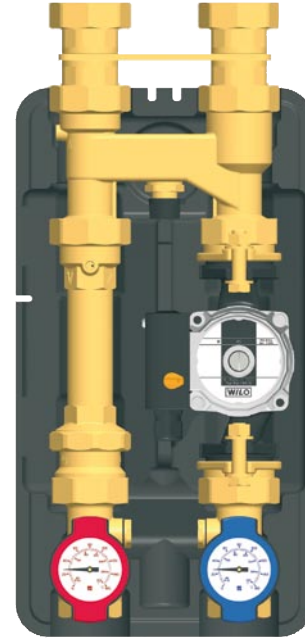
incl. 1 1/2" union nut for the installation on PAW modular distribution manifolds. Individual installations with wall brackets are possible by using the PAW mounting equipment.

Thermal control valve with automatic flow bypass and integrated pressure bypass valve.

ensures that the boiler always keeps a minimum temperature (= opening temperature +/- 5 °F, +/- 3 °C) and prevents the boiler from sooting.

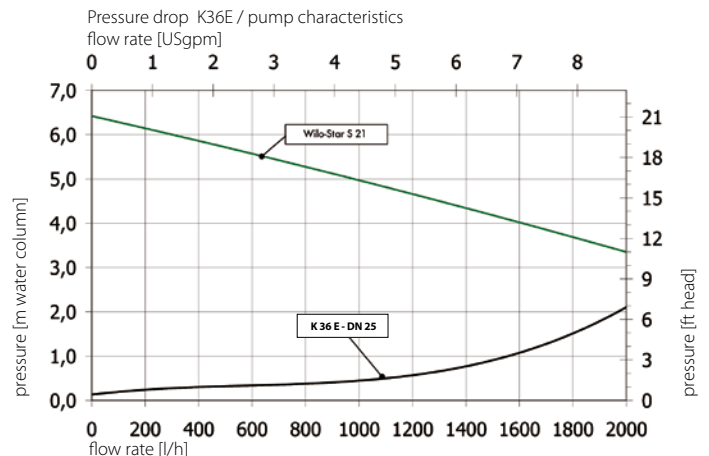
Special feature of the thermal control valve of the K36E heating circuit is the integrated **pressure bypass valve**. By means of this adjustable valve the K36E can be adjusted optimally to all possible working and mounting conditions:

- When mounted to a buffer storage tank or a hydraulic separator the overflow valve must be closed. When the opening temperature in the boiler circuit is achieved, the power of the integrated boiler pump is high enough to load the storage tank / hydraulic separator.
- When mounted to distribution manifolds the pump pressure is reduced by means of the integrated bypass valve. The pump must operate at speed stage II. Unwanted circulation, for example excessive charging of potable water storage tanks, is prevented this way.



TECHNICAL DATA Zone Module K36E

Dimension	DN 25 - 1"	
Opening temperature	50 / 55 / 60 °C 122 °F / 131 °F / 140 °F	
Materials	Fittings	Brass
	Gaskets	EPDM / NBR
	Insulation	EPP
Technical data	Max. pressure	8 bar / 116 psi
	Max. temperature	110 °C / 230 °F
	CV value	5.5
Dimensions	Zone module inlet	1 1/2" female
	Zone module outlet	1" NPT F
	Center distance	125 mm / 4 21/32" "
	Length	382 mm / 15 1/32" "
	Width insulation	250 mm / 9 27/32" "
	Height insulation	462 mm / 18 3/16" "
Recommended application	at ΔT = 20 K / 36 °F	up to 40 kW/136.5 MBH
	at 1725 l/h / 7.6 USgpm	





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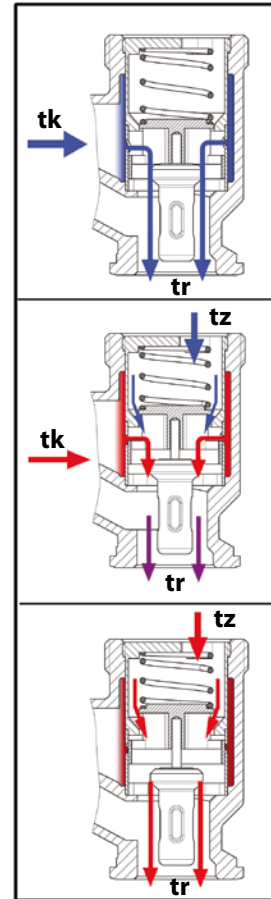
Thermal control valve with bypass and integrated overflow valve

Function:

1. The thermal control valve shuts off the connection to the heating/storage tank (load) as long as the water in the boiler circuit is colder than the opening temperature of the thermal control valve. The pump in the K 36 E circulates the water in the boiler loop by means of the automatic bypass which is completely open.
2. When the water in the boiler circuit has reached the opening temperature (+/- 5 °F) of the thermal control valve this valve opens the flow from/to the load. The bypass shuts off to the same extent as the flow to the load is opened/unlocked. The control valve opens the return line of the load and enables the water to circulate in the circuit depending on the setting of the integrated pressure bypass valve. The cold water from the consumer return line is mixed in the control valve with the hot water from the bypass. Depending on the temperature and the flow rate of the water from the return line the thermal control valve shuts off the connection to the lead. Thus the return line which leads to the boiler always remains at a certain temperature level.
3. With rising temperature in the boiler supply line or rising temperature in the return line from the load the thermal control valve opens (the flow connection to the lead). The temperature of the return line of the boiler remains nearly constant (+/- 5 °F, +/- 3 °C).

Please notice:

The boiler thermostat setpoint has to be set 36 °F (20 °C) higher than opening temperature of K36E.



Boiler temperature t is lower than the opening temperature; $tr = tk$

Boiler temperature tk is higher than the opening temperature. tr is approximately equivalent to the opening temperature.

Return line temperature tz from the consumer is higher than the opening temperature; $tr = tz$

Illustration	Option	Information	PAW pump	Item #
	K36E Opening temp. 50 °C / 122 °F	Advantage PAW pump: <ul style="list-style-type: none"> • completely preassembled • precisely integrated in the insulation • pressure tested • serial number • 3-speed pump 	Wilo Star S 21 FX delivery without pump	4736035 WI21 NA 4736035 NA
	K36E Opening temp. 55 °C / 131 °F		Wilo Star S 21 FX delivery without pump	4736036 WI21 NA 4736036 NA
	K36E Opening temp. 60 °C / 140 °F		Wilo Star S 21 FX delivery without pump	4736037 WI21 NA 4736037 NA
	Wall bracket set for PAW zone module Not required for installation in connection with a PAW modular distribution manifold. Using the wall bracket wall distances from 87.5 mm up to 162.5 mm (with 12.5 mm spacing) are possible. Consists of: steel wall bracket, yellow galvanized, fasteners.			
	Wall bracket for heating circuits DN 25			3422
	Connection set DN 25 2 x tail piece 1 1/2" male for nut thread 1" NPT, brass			3432 NA